



## Reputation of research corporation leads to internship

**B**ently Rotor Dynamics Research Corporation (BRDRC) has a reputation for quality research and experienced personnel that extends around the world. As Senior Engineer for the Thermal Power Research Institute, Ministry of Energy, of the People's Republic of China, Mrs. Xiuzhu Huang considered that reputation when she applied for a United Nation's Technical Research Grant.

The grant, specifically designed to assist individuals in gaining an increased understanding of rotating machinery behavior and diagnostic techniques, provides monetary support while Xiuzhu Huang studies and conducts research.

Once she obtained the grant, she immediately began pursuing the possibility of conducting an internship with BRDRC. Mrs. Huang corresponded with BRDRC for over a year, exchanging research data. As she did, a professional relationship was developed with Dr. Agnes Muszynska, Senior Research Scientist.

Xiuzhu Huang has responsibility for monitoring and diagnostics for all mainland China's power generation needs. It was her belief that BRDRC was the best place for her to learn advanced vibrational diagnostics of machinery. Not only would she benefit from the six-month long internship, but so would her country.

During her internship at BRDRC, Xiuzhu Huang participates in current research on rotor-to-stator rubbing in rotating machines and on identification of modal parameters of motor/bearing/seal systems with fluid interaction. The

identification procedures were developed at BRDRC using nonsynchronous perturbation techniques.

When she returns home, she will take an increased knowledge of rotating machinery and machinery diagnostic techniques with her. Through her internship, she will have gained the benefit that comes from working with leading professionals in this field. BRDRC will have gained as well from the exchange, as Xiuzhu Huang has already arranged through the United Nations for Donald E. Bently and Dr. Muszynska to visit mainland China and lecture at a Machinery Diagnostics Training Seminar. ■

### Donald E. Bently and Dr. Agnes Muszynska plan series of lectures

**I**n early September, Dr. Agnes Muszynska will participate in the 5th International Conference on Vibrations in Rotating Machinery at the University of Bath, United Kingdom. She will present a paper, "Torsional/Lateral Vibration Cross-coupled Responses Due to Shaft Asymmetry: A New Tool in Shaft Crack Detection," co-authored by Pavel Goldman and Donald E. Bently.

During September, Mr. Bently and Dr. Muszynska are also invited lecturers in a Diagnostic School, "Diagnostics '92," organized by the Institute of Applied Mechanics, Technical University of Poznań, Poland. In a series of lectures

and demonstrations, they will teach the fundamentals of diagnostics for rotating machinery.

Later in the month, Dr. Muszynska will also lecture at the Von Karman Institute for Fluid Dynamics Lecture Series Course on "Vibration and Rotor Dynamics." This well-known research institute is located in Rhode St. Genese, Belgium. She will speak on the following topics:

- Perturbation Techniques and Identification of Parameters of Mechanical Systems with Fluid Interaction
- Vibration Diagnostics of Rotating Machinery Malfunctions

Mr. Bently will also lecture at the Seoul (Korea) National University in late September. His topic will be "Monitoring and Analysis of Rotating Machinery Behavior, such as Cracked Shafts, Fluid Induced Instabilities, Rubs, and Other Malfunctions." ■

### In Memoriam

#### Prof. Friedrich von Hayek

Across the years, I have had many excellent "senseis" (teachers). I learned free market economics from a small, but very strong, group of economists and historians, including Ludwig von Mises, Bob LeFeure, Jim Martin and Friedrich von Hayek. F. von Hayek was born on 8 May 1899. He died 23 March 1992 in Friburg, Germany. He was awarded the Nobel prize in Economics in 1974. He profoundly helped everyone in the world.

- Donald E. Bently